REMARKS

OBJECTIONS DUE TO MINOR INFORMALITIES

Claims 3, 7, 13 and 17 stand objected to because of a typographical error in which "whether the cost" was inadvertently set out in the claims as "whether there the cost." Amendments are submitted herein to these claims to correct this error and overcome the objection.

AMENDMENTS DUE TO ISSUES NOTICED BY APPLICANT

Claim 1, as originally submitted, stated, "A method of optimizing the compiled code generated from high level computer programming languages which include loop constructs." Applicant herein amends the claim to state ,"A method of optimizing compiled code generated from high level computer programming languages, *wherein the compiled code includes* loop constructs." This is to avoid any ambiguity, making it clear the "loop constructs" refer to the compiled code. Also, this is to delete "the" in ". . . *the* compiled code generated from . . .," thereby avoiding any possible lack of antecedent basis. Original claims 2, 11 and 12 had similar language. Amendments are submitted herein above for these claims, as well.

Also, Applicant noted that claim 1, step (4), as originally submitted, stated, "the corresponding loop code segments before said optimization." To avoid any confusion as to the meaning of this, Applicant herein amends the claim to refer instead to a "non-optimized loop code segment." Original claims 2, 11 and 12 had similar language. Amendments are submitted herein above for these claims, as well.

REJECTIONS UNDER 35 U.S.C. 102(b)

Claims 1-20 stand rejected under 35 U.S.C. 102(b) as being anticipated by United States Patent No. 5,797,013 ("Mahadevan"). Applicant herein submits amendments to claims 1, 2, 11 and 12, as set out herein above, to distinctly distinguish the present invention over the cited art and thereby overcome the rejection.

Specifically, amendments to claims 1, 2, 11 and 12 are submitted so that each one of the amended claims states that "the non-optimized loop code segment includes a call to a procedure, the call depending on a number of arguments, wherein the call invokes the procedure only if a certain condition is met and wherein the certain condition includes one of the arguments being less than another one of the arguments" and that "the consolidated code includes certain code of

Docket JP920010012US1

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the non-optimized loop code segment and omits certain other code of the non-optimized loop code segment and wherein the call is omitted from the consolidated loop code segment if the execution conditions indicate the certain condition is not met." No new matter is added in the amendments to claims 1, 2, 11 and 12, since the specification as originally submitted provides support. Present application, page 13, lines 4-14 and page 16, lines 21-30 (discussing elimination of recursive calls).

The Office action maintains that claim 1, step (3), of the present application, which states "optimizing the loop code segment for the execution conditions to provide a consolidated code segment corresponding with the execution conditions for execution of the loop said loop repetition number of times n," as originally submitted, is taught by Mahadevan, col. 10, lines 53-61, which describes how an unroll factor is determined and a special case where a trip count is known at compile time, in the context of compiler optimization logic of FIG. 13. The Office action also maintains that claim 1, step (4), of the present application, which states "determining whether the consolidated code segment should be executed in preference to the corresponding loop code segments before said optimization," as originally submitted, is taught by Mahadevan, col. 10, lines 46-52, which mentions cost of a non-optimal unroll factor and describes issues to which the algorithm that computes the unroll factor is sensitive, including "profile data, number of instructions in the loop, architecture features like functional units and cache line size, interactions with other optimizations and constant trip counts." Applicant contends that the added limitations of claims 1, 2, 11 and 12 submitted herein patentably distinguish the present invention over the above cited teachings by Mahadevan, and all the teachings of the cited art, for the following reasons.

First, the cited passages of Mahadevan, col. 10, lines 46-61, do not refer at all to a "call," as in the amended claims of the present application, much less to a "call depending on a number of arguments, wherein the call invokes the procedure only if a certain condition is met and wherein the certain condition includes one of the arguments being less than another one of the arguments," as in amended claims 1, 2, 11 and 12 of the present application.

Second, while Mahadevan does elsewhere refer to an number of types of elimination, such as eliminating extra branches (col. 6, line 30), eliminating exit tests (col. 4, lines 60-65), and "copy elimination" (col. 7, line 6), none of this teaches or suggests "omit[ting] certain other

Page 9 of 10

code of the non-optimized loop code segment" or that "the call is omitted from the consolidated loop code segment if the execution conditions indicate the certain condition is not met," as in amended claims 1, 2, 11 and 12 of the present application.

For the above reasons, Applicant contends independent claims 1, 2, 11 and 12 of the present application, as amended, are allowable. Applicant also contends that dependent claims 3-10, and 13-20 are patentably distinct at least because they each depend on respectively allowable independent claims. MPEP 2143.03.
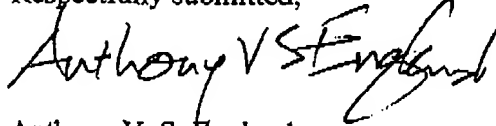
PRIOR ART OF RECORD

Applicant has reviewed the prior art of record cited by but not relied upon by Examiner, and asserts that the invention is patentably distinct.

REQUESTED ACTION

Applicant contends that the invention as claimed in accordance with amendments submitted herein is patentably distinct, and hereby requests that Examiner grant allowance and prompt passage of the application to issuance.

Respectfully submitted,

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